

**VG100**

## **Introduction to Engineering**

### *Project 2*

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**SilverFOCS**

*We foster talents, encourage creativity, and  
reward excellence.*

## **1 Background**

Game day is over! That was so stressful... So much pressure on you, putting together a strong presentation, hoping to avoid unexpected crashes during those endless six minutes, wondering how other trainees would judge your work, and what about the CEO and CTO?

Fortunately it all ended well and you have been invited to join SilverFOCS! Your dream has come true, and you are now a fully dedicated team member working for FOCS' incubator. While your mind wanders in worlds with no limit where you succeed in all your endeavors, your teammates quickly bring you back to reality: the CEO and CTO did not hire you to dream, they just want to exploit your imagination and creativity to develop new games in Elm. The one on your left continues: "Time for our first scrum meeting!"

Without understanding exactly what that means, you head to the meeting room; others stare, wondering why you are leaving. They call you back and explain that a *scrum meeting* is a very short **daily** meeting that keeps everyone up to date with their advances; there's no need for a meeting room for only 10 minutes, the coffee machine is a much better place. It seems that at SilverFOCS incubator all teams must adhere to the *agile development* strategy. So you participate to the best of your abilities, demonstrating your willingness to excel and succeed with the upcoming project.

## **2 Project requirements and objectives**

After this first brief meeting you have a better understanding of the company organization, and expectations. The CEO and her PR team are quite tough, always expecting perfectly polished work with a strong focus on engaging user experience. The player must feel immersed in the game from the moment the instruction booklet is opened. The team is open to all sort of ideas and atmosphere as long as it leads to a high quality product and new sources of revenue.

On their side the CTO and the technical managers have a very strict policy regarding the required programming language: only Elm is allowed. They also want to ensure no time is wasted and no miscommunication occurs. Therefore to support the fast and effective development of the projects each team must use the official company project management application.

Your first task is to set up a new project for your team on the SilverFOCS system. As you explore this tool you discover many options that will facilitate efficient and constant communication and cooperation among your team. You want to make sure you understand perfectly how to take advantage of this new application as early as possible in the course of your project. Start by assigning a simple "project setup" task to yourself, then work on it. You could for instance create forums according to your needs, initiate a Wiki pages for your project team, or assign more tasks based on your first scrum meeting.

## 2.1 Requirements

As the final product will speak for itself, the technical management team does not enforce many specific requirements aside from the following.

### **Requirement 1:** Elm language

In order to maintain high quality coding and minimize debugging time, you must stick to the Elm language. Server based games are discouraged, as most mechanisms would have to be implemented on the server side. Based on the limited amount of time available it would be very hard to properly address all the issues arising in this setup. Permissions might be granted on a case by case basis by the CTO. Overall remember that the fun must come from the game mechanisms, not necessarily from the number of players. In any case, if the CTO grants you the permission to use a server, this server must be coded using a functional programming language such as Haskell or OCaml.

### **Requirement 2:** Usage of Redmine and Git

To ensure good team dynamics we expect all members to participate and fairly share the workload. Beyond the usual team assessment, the contribution of each individual will be evaluated based on the Redmine information and the Git commits. Each piece of work must be submitted by its original author, using his or her own account. Failing to comply with this requirement will be considered a violation of the company policy.<sup>1</sup> The contribution of each team member will be assessed independently.<sup>2</sup>

### **Requirement 3:** Single webpage, web application

While it is tempting to take advantage of hyperlinks to navigate through different scenes, SilverFOCS leadership decided to prevent you from using that approach. They backup their decision based on three main observations: (i) the project structure gets more complex and introduces duplicated code; (ii) it is inefficient as pages are re-loaded and re-computed; and most importantly (iii) it impacts the optimal game flow as the player can jump to pages that should not be accessible.

### **Requirement 4:** Rich in gameplay and strong in technique

As the technical team does not want any trouble with the communication team, the look and feel must remain a very important component of the final design. However in no way should it take over the gameplay and technical aspect of the global game design. A product that looks good is not necessarily a good product. Your aim, in order to satisfy both teams, is to design a good product that also looks good.

## 2.2 Objectives

While the technical teams phrased its condition in the negative term of "requirement", the communication team did a much better job to stimulate motivation by using the positive idea of "objectives" to be met in order to facilitate the promotion of your product.

### **Objective 1:** User documentation and technical descriptions

You have to create a project/product proposal introducing your idea and your plan to achieve it. You will also create an instructional booklet for your game that includes a description of the player experience, including the overall narrative of their game. Examples from document analysis activities can serve as

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<sup>1</sup>An honor code violation.

<sup>2</sup>Excuses such as "I sent my work to someone else for submission" or "I mainly designed things, but did not code", will be rejected by SilverFOCS management team.

a framework. Booklet needs to include: Cover page, branding statement, business logo, objective of the game, play instructions, (see also Objective 2) effective visual and text design. Clear copy, with no grammatical or spelling errors present, is expected.

### **Objective 2:** Visual Communication

You have to create a visually appealing product poster that includes their game's narrative summary, the technical process, and game play, and information about the development team. Emphasis on effective visual and text design. The visual design of the game must be an integrated world in whatever way you decide to create it, so that all parts synchronize with each other in a pleasant manner. All external visual and audio resources must be drawn from copyright-free sources and correctly attributed. The CEO prefers that original content be created and presented in lieu of remixing someone else's materials. This is a creative as well as technical challenge, after all.

### **Objective 3:** Pitching and persuasion

You should prepare a software proposal and initial specs and story pitch on your Wiki. The SilverFOCS team will interact with you via a number of internal development staff members who will challenge you to improve your work and monitor your progress. As you receive feedback, you will advance in the drafting process to develop your project. Do not hesitate to create questionnaires or surveys and design product revisions around that information. Write convincing statements around the game being a worthy experience for users. Clear copy, with no grammatical or spelling errors present, is expected. (see also Objective 1)

### **Objective 4:** Oral Communication skills

You will present your game to expo audience, including neophytes, peers, and SilverFOCS officials. Every member of your development team will present different features of your game and demonstrate their ability **to sell** the amazing product you've created. Slides for the expo (see also Objective 1 and 2) must be concise, with effective visual and text design and clear copy.

## **3 Project timeline**

Due to budgetary constraints your project must be completed within a very short time frame, only several weeks instead of months. This means the interval between two steps has to be adjusted accordingly. Do not forget to take that information into account when planning your *sprints*.

**Week 7:** Initial product specifications, narrative, and sketches of visual elements.

**Week 9:** Minimum Viable Product (MVP). Only the very basic mechanisms are implemented<sup>3</sup>. This very early version will be used to assess whether the ideas of the game are both *feasible* and *fun*. No visuals are necessary at this stage. Game-testing can start.

**Week 10:** Alpha version release. Early prototype providing a clear idea of the final product. No fancy visual effects are necessary, and all basic mechanisms are implemented. Game-testing is now an integral part of the development process.

**Week 11:** Beta version release. Almost final product, much polishing still remaining. Only minor features improving the flow of the game can be added. From this stage on the focus should be game testing to ensure a high quality product can be achieved within the following few weeks. Starting with this beta

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<sup>3</sup>Similar to the base breakout game (Milestone 2 of project 1).

version, game-testing is open to all teams. Heavy interactions among the various teams is a must, in particular external bug reports and feature requests must be submitted.

**Week 12:** Release candidate. No new feature can be added, the effort now focuses on providing a perfect product, from both the technical and communication parts. This is now a global effort of all the teams helping each others polishing their work through bug reports and forum feedbacks.

**Week 13:** Final product due. Impress everybody with your work during the EXPO!